

## Contents of Volume 46

### Number 1

- |               |    |  |
|---------------|----|--|
| Editorial     | 1  | Environmental carpetbaggers<br><i>C. Sheppard</i>  |
| News          | 3  | Euro coin production leads to toxic waste in the sea; UK water companies fined for sewage violations; Australian Western Rock Lobster Fishery exempted from export   |
|               | 4  | USGS releases atlas of natural hazards of Hawaii's coastal areas; Studies on long-term coral recovery; International protection for Florida Key coral reefs  |
|               | 5  | Earth's climate system depends on phytoplankton; Iceberg blockade threatens Emperor penguin colony; Green protests against World Bank funding for shrimp industry; Fish waste problems in Alaska                           |
|               | 6  | Long-term impact of Massachusetts oil spill  |
| News-in-Brief | 6  | South Africa; Alaska; USA; Philippines   |
| Review        | 7  | The cold-water coral <i>Lophelia pertusa</i> (Scleractinia) and enigmatic seabed mounds along the north-east Atlantic margin: are they related?<br><i>J.M. Roberts, D. Long, J.B. Wilson, P.B. Mortensen and J.D. Gage</i> |
| Viewpoints    | 21 | The EU directive on port reception facilities for ship-generated waste and cargo residues: current availability of facilities in the North Sea<br><i>A. Carpenter and S.M. Macgill</i>                                     |
|               | 33 | Can we always ignore ship-generated food waste?<br><i>J. Polglaze</i>  |
| Focus         | 39 | The concept of "sustainable ecological succession"; and its value in assessing the recovery of sediment seabed biodiversity from environmental impact<br><i>D.V. Ellis</i>   |
| Reports       | 42 | Recovery simulations of grossly polluted sediments in the Bilbao Estuary<br><i>J. Antonio González Oreja and J. Ignacio Saiz Salinas</i>   |
|               | 49 | Spills of fuel oil #6 and Orimulsion can have indistinguishable effects on the benthic meiofauna<br><i>K. Suderman and D. Thistle</i>  |
|               | 56 | A toxicity identification evaluation of silty marine harbor sediments to characterize persistent and non-persistent constituents<br><i>J. Stronkhorst, M.E. Schot, M.C. Dubbeldam and K.T. Ho</i>                          |
|               | 65 | Survivorship and growth of <i>Fucus gardneri</i> after transplant to an acid mine drainage-polluted area<br><i>A.D. Marsden, R.E. DeWreede and C.D. Levings</i>  |

	74	Emergent effects of heavy metal pollution at a population level: <i>Littorina brevicula</i> a study case <i>S.-J. Kim, M. Rodriguez-Lanetty, J.-H. Suh and J.-I. Song</i>
	81	A field survey of chemicals and biological products used in shrimp farming <i>S. Gräslund, K. Holmström and A. Wahlström</i>
	91	Identifying potential marine pests—a deductive approach applied to Australia <i>K.R. Hayes and C. Sliwa</i>
	99	Acoustic characteristics of fish bombing: potential to develop an automated blast detector <i>G.H. Woodman, S.C. Wilson, V.Y.F. Li and R. Renneberg</i>
	107	Cytochrome P4501A expression, chemical contaminants and histopathology in roach, goby and sturgeon and chemical contaminants in sediments from the Caspian Sea, Lake Balkhash and the Ily River Delta, Kazakhstan <i>M.J. Moore, I.V. Mitrofanov, S.S. Valentini, V.V. Volkov, A.V. Kurbskiy, E.N. Zhimbey, L.B. Eglinton and J.J. Stegeman</i>
	120	Electrokinetic potentials of mineral oxides and calcium carbonate in artificial seawater <i>M. Kosmulski, E. Maczka, K. Marczewska-Boczkowska and J.B. Rosenholm</i>
	123	The distributions of particulate heavy metals and its indication to the transfer of sediments in the Changjiang Estuary and Hangzhou Bay, China <i>Y. Che, Q. He and W.-Q. Lin</i>
Note	132	Quantification and classification of marine litter on the municipal beach of Ensenada, Baja California, Mexico <i>L. Silva-Iñiguez and D.W. Fischer</i>
Baseline	139	Trace metals in ribbed mussels from Arthur Kill, New York/New Jersey, USA <i>A.J. Paulson, B. Sharack and V. Zdanowicz</i>
	146	Trace metals in Fanga'uta Lagoon, Kingdom of Tonga <i>R.J. Morrison and P.L. Brown</i>
 <b>Number 2</b>		
Editorial	153	Marine invertebrates and their conservation <i>P. Hutchings and W. Ponder</i>
News	155	WWF rejects the compromise on cod fishing; Designer fish fight disease; Right whales may be feeding on poisonous copepods
	156	Good news for dolphins chasing tuna; Human gut bug implicated in coral 'while pox'; Polar bears threatened by global warming
	157	Australian protection for port waterways; Major funding to clean up Long Island Sound; Los Angeles found liable for sewage violations
	158	NOAA funds Alaska fisheries restoration
News-in-Brief	158	Great Lakes; England

Viewpoint	159	Harmonisation of polychlorinated biphenyl (PCB) analyses for ecotoxicological interpretations of southeast Asian environmental media: what's the problem? <i>M. Martin, B.J. Richardson and P.K.S. Lam</i>
Review	171	Review on toxicity testing with marine macroalgae and the need for method standardization—exemplified with copper and phenol <i>B.T. Eklund and L. Kautsky</i>
Focus	182	The use of biomarkers in environmental monitoring programmes <i>P.K.S. Lam and J.S. Gray</i>
Reports	187	Heavy metal concentrations in growth bands of corals: a record of mine tailings input through time (Marinduque Island, Philippines) <i>C.P. David</i>
	197	The role of the Río de la Plata bottom salinity front in accumulating debris <i>E.M. Acha, H.W. Mianzan, O. Iribarne, D.A. Gagliardini, C. Lasta and P. Daleo</i>
	203	Cytochrome P450, acetylcholinesterase and gonadal histology for evaluating contaminant exposure levels in fishes from a highly eutrophic brackish ecosystem: the Orbetello Lagoon, Italy <i>I. Corsi, M. Mariottini, C. Sensini, L. Lancini and S. Focardi</i>
	213	Marine introductions in the Southern Ocean: an unrecognised hazard to biodiversity <i>P.N. Lewis, C.L. Hewitt, M. Riddle and A. McMinn</i>
	224	Floating marine debris in coastal waters of the SE-Pacific (Chile) <i>M. Thiel, I. Hinojosa, N. Vásquez and E. Macaya</i>
	232	Cost-efficient methods for marine pollution monitoring at Casey Station, East Antarctica: the choice of sieve mesh-size and taxonomic resolution <i>B.W. Thompson, M.J. Riddle and J.S. Stark</i>
	244	Horizontal and vertical distribution of PCBs and chlorinated pesticides in sediments from Masan Bay, Korea <i>S.H. Hong, U.H. Yim, W.J. Shim, J.R. Oh and I.S. Lee</i>
Note	254	The loss of the chemical tanker <i>Ievoli Sun</i> in the English Channel, October 2000 <i>R.J. Law, C. Kelly, P. Matthiessen and J. Aldridge</i>
Baseline	258	Paralytic shellfish toxins in green-lipped mussels, <i>Perna viridis</i> , in Hong Kong <i>K.C.Y. Mak, A.M.Y. Li, D.P.H. Hsieh, P.S. Wong, M.H.W. Lam, R.S.S. Wu, B.J. Richardson and P.K.S. Lam</i>
	263	Heavy metals in sediments of the inner shelf off the Gulf of Mannar, South East Coast of India <i>M.P. Jonathan and V.R. Mohan</i>
<b>Number 3</b>		
Editorial	269	Baseline special articles: an occasional series <i>B. Richardson</i>
News	271	Record of Thames Barrier heralds 2003; Beheaded turtles washing ashore in Mozambique; Nigeria to get tough on oil polluters



	272	Increased protection for Great Barrier Reef; Suspected cat link to sea otter disease; Smothering seaweed spreading on Florida coral reefs
	273	Report shows a decline in acid rain deposition in US; Heavy penalties for Washington oil spill cover up; Boat sewage discharge prohibition for Connecticut
	274	US EPA celebrates 30 years of the Clean Water Act
News-in-Brief	274	Burma; Antarctica; England; South Africa
View point	275	Biological pollutants and biological pollution—an increasing cause for concern <i>M. Elliott</i>
Review	281	Asia-Pacific mussel watch: monitoring contamination of persistent organochlorine compounds in coastal waters of Asian countries <i>I. Monirith, D. Ueno, S. Takahashi, H. Nakata, A. Sudaryanto, A. Subramanian, S. Karuppiah, A. Ismail, M. Muchtar, J. Zheng, B.J. Richardson, M. Prudente, N.D. Hue, T.S. Tana, A.V. Tkalin and S. Tanabe</i>
Focus	301	Viruses and marine pollution <i>R. Danovaro, M. Armeni, C. Corinaldesi and M.L. Mei</i>
	305	Rocky shore intertidal zonation as a means of monitoring and assessing shoreline biodiversity recovery <i>D.V. Ellis</i>
Reports	308	Flow cytometry and conventional enumeration of microorganisms in ships' ballast water and marine samples <i>E.L. Joachimsthal, V. Ivanov, J.-H. Tay and S.T.-L. Tay</i>
	314	Partial mortality in massive reef corals as an indicator of sediment stress on coral reefs <i>M.M. Nugues and C.M. Roberts</i>
	324	Integrated use of biomarkers (acetylcholinesterase and antioxidant enzymes activities) in <i>Mytilus galloprovincialis</i> and <i>Mullus barbatus</i> in an Italian coastal marine area <i>M.G. Lionetto, R. Caricato, M.E. Giordano, M.F. Pascariello, L. Marinosci and T. Schettino</i>
	331	Mercury pollution sources in sediments of Patos Lagoon Estuary, Southern Brazil <i>N. Mirlean, V.E. Andrus and P. Baisch</i>
	335	Assessment of urban and industrial contamination levels in the bay of Cádiz, SW Spain <i>M. Carrasco, J.A. López-Ramírez, J. Benavente, F. López-Aguayo and D. Sales</i>
	346	Seasonal changes in zooplanktonic alkaline phosphatase activity in Toulon Bay (France): the role of <i>Cypris</i> larvae <i>N. Jean, G. Bogé, J.-L. Jamet, S. Richard and D. Jamet</i>
Notes	353	A simple method to reduce discharge of sewage microorganisms from an Antarctic research station <i>K.A. Hughes and N. Blenkharn</i>
	358	Evidence of a high percentage of intersex in the Mediterranean swordfish ( <i>Xiphias gladius</i> L.) <i>G. De Metrio, A. Corriero, S. Desantis, D. Zubani, F. Cirillo, M. Deflorio, C.R. Bridges, J. Eicker, J.M. de la Serna, P. Megalofonou and D.E. Kime</i>

Baseline	362	Organohalogens and metals in marine fish and mussels and some relationships to biological variables at reference localities in Norway <i>N.W. Green and J. Knutzen</i>
	374	Aliphatic hydrocarbons in biota from the Gulf of Naples (Italy) <i>R. Amodio-Cocchieri and T. Cirillo</i>
<b>Number 4</b>		
Editorial	379	Slaughter at sea <i>B. Morton</i>
News	381	UK water company fined for polluting the North Sea; Massive fish kill from spilled insecticide; Ancient logbooks used to study climate change
	382	Loud noise can injure fish hearing; Commonwealth government tackling marine debris; Fossil records indicate massive ancient methane releases
	383	Human impacts linked to size declines of marine snails in Southern California; GM salmon on hold in US; New website for monitoring and tracking sea level changes
	384	U.S. National Ocean Service seeks lost equipment; Wild birds to be used to restore damaged sea grass beds; Monitoring hear stresses on coral reefs
Review	385	Coral bleaching—how and why? <i>A.E. Douglas</i>
Focus	393	Funding in integrated coastal zone management partnerships <i>D.J. McGlashan</i>
	397	Heavy metal residues in tissues of marine turtles <i>M.M. Storelli and G.O. Marcotrigiano</i>
Reports	401	Assessment of organotin contamination in marine sediments and biota from the Gulf and adjacent region <i>S.J. de Mora, S.W. Fowler, R. Cassi and I. Tolosa</i>
	410	Polycyclic aromatic musk compounds in sewage treatment plant effluents of Canada and Sweden—first results <i>M. Ricking, J. Schwarzbauer, J. Hellou, A. Svenson and V. Zitko</i>
	418	Biodegradation of toxic chemicals in Guayanilla Bay, Puerto Rico <i>B.R. Zaidi, L.M. Hinkey, N.R. Rodríguez, N.S. Govind and S.H. Imam</i>
	424	Elements in fish of Malibu Creek and Malibu Lagoon near Los Angeles, California <i>A. Moeller, S.D. MacNeil, R.F. Ambrose and S.S. Que Hee</i>
	430	Response of estuarine meio- and macrofauna to in situ bioremediation of oil-contaminated sediment <i>M. Schratzberger, F. Daniel, C.M. Wall, R. Kilbride, S.J. Macnaughton, S.E. Boyd, H.L. Rees, K. Lee and R.P.J. Swannell</i>
	444	Seasonal variability in the concentrations of Irgarol 1051 in Brighton Marina, UK; including the impact of dredging <i>J.C. Bowman, J.W. Readman and J.L. Zhou</i>

	452	$\delta^{15}\text{N}$ of seagrass leaves for monitoring anthropogenic nutrient increases in coral reef ecosystems <i>M. Yamamuro, H. Kayanne and H. Yamano</i>
	459	Gonadal histology and serum vitellogenin levels of bigeye tuna <i>Thunnus obesus</i> from the Northern Pacific Ocean—absence of endocrine disruption bio-indicators <i>S. Hashimoto, R. Kurihara, C.A. Strüssmann, T. Yamasaki, K. Soyano, A. Hara, H. Shiraishi and M. Morita</i>
	466	Degradation rates of low molecular weight PAH correlate with sediment TOC in marine subtidal sediments <i>K.R. Hinga</i>
	475	A description of how metal pollution occurs in the Tinto-Odiel rias (Huelva-Spain) through the application of cluster analysis <i>J.A. Grande, J. Borrego, J.A. Morales and M.L. de la Torre</i>
	481	Assessment of the bioavailability and toxicity of sediment-associated polycyclic aromatic hydrocarbons and heavy metals applied to <i>Crassostrea gigas</i> embryos and larvae <i>O. Geffard, A. Geffard, E. His and H. Budzinski</i>
Baseline	491	Pollution in intertidal sediments of San Simón Bay (Inner Ria de Vigo, NW of Spain): total heavy metal concentrations and speciation <i>P. Álvarez-Iglesias, B. Rubio and F. Vilas</i>
	504	Heavy metal levels in bottlenose and striped dolphins off the Mediterranean coast of Israel <i>M. Roditi-Elasar, D. Kerem, H. Hornung, N. Kress, E. Shoham-Frider, O. Goffman and E. Spanier</i>
	513	A survey of dioxin and furan compounds in sediments of Florida Panhandle Bay systems <i>J.M. Hemming, M.S. Brim and R.B. Jarvis</i>
Correspondence	522	Biomagnification <i>A.T. Fisk et al.</i>
	525	Reply to Fisk et al. <i>J.S. Gray</i>
Book Review	527	The precautionary principle. A critical appraisal of environmental risk assessment <i>D. Ellis</i>
<b>Number 5</b>		
Editorial	529	Coral reef “restoration” and coral transplantation <i>H.T. Yap</i>
News	530	400 fish die in sewage leak incident; Environmental effects of the <i>Erika</i> oil spill; Whale populations under protection and destruction
	531	Do cleaner fish hold key to reef biodiversity?; Brazilian toxic leak; Non-toxic anti-fouling paints for ships



- 532 Hawaiian digital seafloor maps; Coral bleaching increasing in US waters; New test for faecal contamination of water
- 533 Sewage sludge becomes magnetic; Critical habitats designated for gulf sturgeon
- Viewpoint 534 Data use and information creation: challenges for marine scientists and for managers  
*K. Hiscock, M. Elliott, D. Laffoley and S. Rogers*
- Review 542 Biological invasions as a component of global change in stressed marine ecosystems  
*A. Occhipinti-Ambrogi and D. Savini*
- Focus 552 Taxonomic sufficiency: an overview of its use in the monitoring of sublittoral benthic communities after oil spills  
*J.C. Dauvin, J.L. Gomez Gesteira and M. Salvande Fraga*
- 556 Taxonomic sufficiency and the increasing insufficiency of taxonomic expertise  
*A. Terlizzi, S. Bevilacqua, S. Fraschetti and F. Boero*
- Reports 562 Taxonomic level for assessing oil spill effects on soft-bottom sublittoral benthic communities  
*J.L. Gomez Gesteira, J.C. Dauvin and M. Salvande Fraga*
- 573 Changes in zooxanthellae density, morphology, and mitotic index in hermatypic corals and anemones exposed to cyanide  
*J.M. Cervino, R.L. Hayes, M. Honovich, T.J. Goreau, S. Jones and P.J. Rubec*
- 587 A database of archived drilling records of the drill cuttings piles at the North West Hutton oil platform  
*R. Marsh*
- 594 Organochlorine contaminant exposure and associations with hematological and humoral immune functional assays with dam age as a factor in free-ranging northern fur seal pups (*Callorhinus ursinus*)  
*K.B. Beckmen, J.E. Blake, G.M. Ylitalo, J.L. Stott and T.M. O'Hara*
- 607 Removal of ammonia toxicity in marine sediment TIEs: a comparison of *Ulva lactuca*, zeolite and aeration methods  
*R.M. Burgess, M.C. Pelletier, K.T. Ho, J.R. Serbst, S.A. Ryba, A. Kuhn, M.M. Perron, P. Raczelowski and M.G. Cantwell*
- 619 Polycyclic aromatic hydrocarbons in the sediments of the Yalujiang Estuary, North China  
*Y. Wu, J. Zhang and Z. Zhu*
- 626 Kinetic partitioning of Co, Mn, Cs, Fe, Ag, Zn and Cd in fresh waters (Loire) mixed with brackish waters (Loire estuary): experimental and modelling approaches  
*P. Ciffroy, J.-M. Garnier and L. Benyahya*
- 642 Coral recruitment onto an experimental pulverised fuel ash-concrete artificial reef  
*K.K.Y. Lam*
- Note 654 Cryostorage of hepatic microsomes from two marine mammal species: effects on cytochrome P450-monooxygenase activities and content  
*R.E. Tilley, G.D. Kemp and A.J. Hall*

- |              |     |  |
|--------------|-----|--|
| Baseline     | 659 | Seasonal variation of selected metals in sediments, water and tissues of the groovy mullet, <i>Liza dumerelii</i> (Mugilidae) from the Mhlathuze Estuary, South Africa<br><i>H.M. Mzimela, V. Wepener and D.P. Cyrus</i> |
|              | 665 | Cloning of the HSP70 gene in barnacle larvae and its expression under hypoxic conditions<br><i>S.H. Cheng, C.H. So, P.K. Chan, C.W. Cheng and R.S.S. Wu</i>  |
|              | 672 | Chlorinated organic contaminants in surface sediments from the Yangtze Estuary and nearby coastal areas, China<br><i>M. Liu, Y. Yang, L. Hou, S. Xu, D. Ou, B. Zhang and Q. Liu</i>                                      |
| Book reviews | 677 | Global Environmental Change. No. 17 in the series 'Issues in Environmental Science and Technology'<br><i>C. Sheppard</i>   |
|              | 678 | The Gulf Ecosystem. Health and sustainability<br><i>C. Sheppard</i>  |

## Number 6

- |               |     |  |
|---------------|-----|--|
| Editorial     | 679 | Off-shore activity and environmental compatibility in the Mediterranean<br><i>G. Cognetti</i>  |
| News          | 681 | New Tyne Tunnel environmental agreement; Decline in freshwater pearl mussels; French act to protect Mediterranean; Barents sea under threat from oil developments                    |
|               | 682 | Iron and plankton may not be the whole story; Portions of US Gulf Coast are sinking  |
|               | 683 | Cleaning up New England beaches; Forecasting faecal contamination on bathing beaches; Ecological forecast predict lower shrimp catches in US   |
|               | 684 | Tampa bay wetland restored   |
| News-in-Brief | 684 | Canada; Kenya; Baltic Sea  |
| Review        | 685 | The role of the exchanges through the Strait of Gibraltar on the budget of elements in the Western Mediterranean Sea: consequences of human-induced modifications<br><i>F. Gómez</i> |
| Focus         | 695 | Black sea seagrasses<br><i>N.A. Milchakova and R.C. Phillips</i>   |
|               | 700 | How multiagency partnerships can successfully address large-scale pollution problems: a Hawaii case study<br><i>M.J. Donohue</i>   |
| Reports       | 703 | Transfer of organic contaminants to the Baltic in the Odra Estuary<br><i>G. Kowalewska, J. Konat-Stepowicz, B. Wawrzyniak-Wydrowska and M. Szymczak-Żyła</i>                         |
|               | 719 | Dissolved trace metal distributions in Port Jackson estuary (Sydney Harbour), Australia<br><i>V. Hatje, S.C. Apte, L.T. Hales and G.F. Birch</i>                                     |



	731	Comparing methods and sediment contaminant indicators for determining produced water fate in a Louisiana estuary <i>D.W. Woodall, N.N. Rabalais, R.P. Gambrell and R.D. DeLaune</i>
	741	Contamination by organochlorine compounds in sturgeons from Caspian Sea during 2001 and 2002 <i>N. Kajiwara, D. Ueno, I. Monirith, S. Tanabe, M. Pourkazemi and D.G. Aubrey</i>
	748	Application of enterococci antibiotic resistance patterns for contamination source identification at Huntington Beach, California <i>S. Choi, W. Chu, J. Brown, S.J. Becker, V.J. Harwood and S.C. Jiang</i>
	756	Selection of bioindicators for monitoring marine environmental quality in the Bay of Fundy, Atlantic Canada <i>C.L. Chou, L.A. Paon, J.D. Moffatt and T. King</i>
	763	Measurement of copper release rates from antifouling paint under laboratory and in situ conditions: implications for loading estimation to marine water bodies <i>A.O. Valkirs, P.F. Seligman, E. Haslbeck and J.S. Caso</i>
	780	Evaluation of nonwoven polypropylene oil sorbents in marine oil-spill recovery <i>Q.F. Wei, R.R. Mather, A.F. Fotheringham and R.D. Yang</i>
Baseline	784	Heavy metal contamination in sediment and biomonitors from sites around the Isle of Man <i>E.R. Daka, J.R. Allen and S.J. Hawkins</i>
	792	Increased risk of non-seasonal and body immersion recreational marine bathers contacting indicator microorganisms of sewage pollution <i>G. Bradley and C. Hancock</i>
<b>Number 7</b>		
Editorial	795	Fishing for diplomacy in China's Seas <i>B. Morton</i>
News	797	U.K. Marine habitat restoration study; Wild salmon continue to decline; Condemnation for nuclear waste shipment
	798	Dutch government urged to adopt a coherent North Sea Policy; Sustainable African fishing sought by WWF; Report claims only 10% of the world's large fish remain; Escalating rubbish problems in Namibia
	799	Barrier Reef protection proposals; California sea otter numbers are up for the 2003 census; Killer whale population drops in Puget Sound
	800	A new oil spill hits Buzzards Bay; Volunteers measure water quality across California
News-in-Brief	800	Germany; England; Australia
Viewpoint	801	Research on intact marine ecosystems: a lost era <i>M. Stachowitsch</i>
Review	806	Shrimp aquaculture development and the environment in the Gulf of California ecoregion <i>F. Páez-Osuna, A. Gracia, F. Flores-Verdugo, L.P. Lyle-Fritch, R. Alonso-Rodríguez, A. Roque and A.C. Ruiz-Fernández</i>

- Focus 816 Is the invasion of the common reed, *Phragmites australis*, into tidal marshes of the eastern US an ecological disaster?  
*J.S. Weis and P. Weis*
- Reports 821 Stable carbon and nitrogen isotope signatures indicate recovery of marine biota from sewage pollution at Moa Point, New Zealand  
*K.M. Rogers*
- 828 Evaluating vegetative transplant success in *Posidonia australis*: a field trial with habitat enhancement  
*M.L. Campbell and E.I. Paling*
- 835 The application of a Marine Biotic Index to different impact sources affecting soft-bottom benthic communities along European coasts  
*A. Borja, I. Muxika and J. Franco*
- 846 Mercury in sediments of Ulhas estuary  
*A. Ram, M.A. Rokade, D.V. Borole and M.D. Zingde*
- 858 Comparison of coral growth and survival under enclosed, semi-natural conditions and in the field  
*H.T. Yap and R.A. Molina*
- 865 The effect of Marmara (İzmit) Earthquake on the chemical oceanography of İzmit Bay, Turkey  
*N. Balkıs*
- 879 POPs in edible clams from different Italian and European markets and possible human health risk  
*A. Binelli and A. Provini*
- 887 Intrinsic bioremediation of a petroleum-impacted wetland  
*M.A. Mills, J.S. Bonner, T.J. McDonald, C.A. Page and R.L. Autenrieth*
- Note 900 Assessing the impact of major oil spills on seabird populations  
*M. Heubeck, K.C.J. Camphuysen, R. Bao, D. Humple, A. Sandoval Rey, B. Cadiou, S. Bräger and T. Thomas*
- Baseline 903 Microbiological characterisation of a diesel contaminated beach site  
*G.I. Paton, C.O. Iroegbu and J.J.C. Dawson*
- 907 Polycyclic aromatic hydrocarbons in surficial coastal sediments of the Ligurian Sea  
*R.M. Bertolotto, F. Ghioni, M. Frignani, D. Alvarado-Aguilar, L.G. Bellucci, C. Cuneo, M.R. Picca and E. Gollo*
- 914 Baseline radionuclide concentrations in Omani Fish  
*C.C. Goddard, C.P. Mathews and J. Al Mamry*
- Correspondence 918 Fixing the wheel the carpetbaggers broke  
*M. Martin, P.K.S. Lam and B.J. Richardson*
- 921 Selling garbage in beautiful packages  
*F. Boero*
- 922 Environmental carpetbaggers  
*D.V. Subba Rao*

Correspondence	924	Is the IWC finished as an instrument for the conservation of whales and the regulation of whaling? <i>S. Holt</i>
<b>Number 8</b>		
Editorial	927	Missing and needed: polar marine ecotoxicology <i>P.M. Chapman and M.J. Riddle</i>
News	929	Winner of The Heyerdahl Award 2003; More action needed to protect North East Atlantic and Baltic; Oil to trouble Russian gray whales' waters?
	930	Salmon farm escapees threaten wild salmon stocks; Australia's Murray cod threatened; Antarctic research vessel heads north to map Arctic waters; White shark research organization charged
	931	Suspected disease closes two Florida reef patches; Coral larvae tracking off Maui; Possible polychaete vector for coral bleaching bacterium
	932	Rhode Island shows drop in pollution discharges; Improved water quality at New England beaches; US Senate backs study of coastal oil and gas reserves
Focus	933	The precautionary principle and environmental monitoring <i>D.V. Ellis</i>
	935	Economic and environmental impacts on ports and harbors from the convention to ban harmful marine anti-fouling systems <i>M.A. Champ</i>
Reports	941	Distribution and source recognition of polycyclic aromatic hydrocarbons in the sediments of Hsin-ta Harbour and adjacent coastal areas, Taiwan <i>M.-D. Fang, C.-L. Lee and C.-S. Yu</i>
	954	Use of physiological responses in <i>Mytilus trossulus</i> as integrative bioindicators of sewage pollution <i>A. Moles and N. Hale</i>
	959	Pollution by polychlorinated biphenyls in an estuary of the Gulf of California. Their toxicity and bioaccumulation in shrimp <i>Litopenaeus vannamei</i> <i>G.G. Reyes, J.M. Verdugo, D. Cassin and R. Carvajal</i>
	964	Can plankton communities be considered as bio-indicators of water quality in the Lagoon of Venice? <i>F. Bianchi, F. Acri, F.B. Aubry, A. Berton, A. Boldrin, E. Camatti, D. Cassin and A. Comaschi</i>
	972	The use of a non-lethal tool for evaluating toxicological hazard of organochlorine contaminants in Mediterranean cetaceans: new data 10 years after the first paper published in MPB <i>M.C. Fossi, L. Marsili, G. Neri, A. Natoli, E. Politi and S. Panigada</i>
	983	Natural cleanup of heavy fuel oil on rocks: an in situ experiment <i>R. Jézéquel, L. Menot, F.-X. Merlin and R.C. Prince</i>
	991	Field measurements and modeling of dilution in the wake of a US navy frigate <i>C.N. Katz, D.B. Chadwick, J. Rohr, M. Hyman and D. Ondercin</i>



- |                 |      |  |
|-----------------|------|--|
|                 | 1006 | Turbidity regimes over fringing coral reefs near a mining site at Lihir Island, Papua New Guinea<br><i>S. Thomas, P.V. Ridd and G. Day</i>   |
|                 | 1015 | Persistence of petroleum hydrocarbon contamination in sediments of the canals in Venice, Italy: 1995 and 1998<br><i>D.L. Wetzel and E.S. Van Vleet</i>   |
|                 | 1024 | Recovery in rubble fields: long-term impacts of blast fishing<br><i>H.E. Fox, J.S. Pet, R. Dahuri and R.L. Caldwell</i>  |
| Note            | 1032 | Future aquatic nutrient limitations<br><i>R.E. Turner, N.N. Rabalais, D. Justic' and Q. Dortch</i>   |
| Baseline        | 1035 | Polychlorinated biphenyl, heavy metal and methylmercury residues in hammerhead sharks: contaminant status and assessment<br><i>M.M. Storelli, E. Ceci, A. Storelli and G.O. Marcotrigiano</i>  |
|                 | 1039 | Accumulation of metals in the soft tissues, byssus and shell of the mytilid mussel <i>Perna viridis</i> (Bivalvia: Mytilidae) from polluted and uncontaminated locations in Hong Kong coastal waters<br><i>S. Nicholson and P. Szefer</i>            |
|                 | 1043 | Background concentrations of Cd, Cu, Pb and Zn in the green-lipped mussel <i>Perna viridis</i> (Linnaeus) from Peninsular Malaysia<br><i>C.K. Yap, A. Ismail and S.G. Tan</i>  |
| Book review     | 1049 | The Sea Knows No Boundaries: A Century of Marine Science Under ICES<br><i>J.B. Pearce</i>  |
| <b>Number 9</b> |      |  |
| Editorial       | 1051 | From mimeos to E-copy—a tribute to Professor R.B. (Bob) Clark, founding editor of the <i>Marine Pollution Bulletin</i><br><i>P. Wells, J. Baker, P. Chapman, M. Elliott, P. Hutchings, K. Mann, P. Olive, J. Pearce, D. Phillips and C. Sheppard</i> |
| News            | 1055 | Concern over the health of the North East Atlantic and Baltic; Ship breaking protest; Australia Acts to Protect Marine Turtles   |
|                 | 1056 | Sea lanes shift in Canada to save the whales; Concern for health of transported dolphins; Environmentalists buy island to protect whale sharks   |
|                 | 1057 | Korean island designated as nuclear waste site; \$85,000 penalty for Fish Waste Problems   |
|                 | 1058 | Legislation to fight algal blooms on Georges Bank; Hawaiian coral reef study   |
| Viewpoint       | 1059 | Assessing health of the Bay of Fundy—concepts and framework<br><i>P.G. Wells</i>   |
| Focus           | 1078 | Polymerisation versus degradation of sunflower oil spilled in the marine environments<br><i>M.G. Pereira, S.M. Mudge and J. Latchford</i>  |
| Reports         | 1082 | Organochlorine contaminants in sea turtles from the Eastern Pacific<br><i>S.C. Gardner, M.D. Pier, R. Wesselman and J.A. Juárez</i>  |

- 1090 The extent of chronic marine oil pollution in southeastern Newfoundland waters assessed through beached bird surveys 1984-1999  
*F.K. Wiese and P.C. Ryan*
- 1102 Surveillance for previously unmonitored organic contaminants in the San Francisco Estuary  
*D.R. Oros, W.M. Jarman, T. Lowe, N. David, S. Lowe and J.A. Davis*
- 1111 Benthos abundance pattern and species composition in conditions of pollution in Amursky Bay (the Peter the Great Bay, the Sea of Japan)  
*T.A. Belan*
- 1120 Effects of particulate matter released by a fish farm (Eilat, Red Sea) on survival and growth of *Stylophora pistillata* coral nubbins  
*L. Bongiorno, S. Shafir and B. Rinkevich*
- 1125 Patterns in benthic populations in the Milford Haven waterway following the 'Sea Empress' oil spill with special reference to amphipods  
*C.C.S. Nikitik and A.W. Robinson*
- 1142 Floating debris in the Ligurian Sea, north-western Mediterranean  
*S. Aliani, A. Griffa and A. Molcard*
- 1150 Imposex in the indigenous *Nassarius kraussianus* (Mollusca: Neogastropoda) from South African harbours  
*D.J. Marshall and A. Rajkumar*
- 1156 Dredging-induced nutrient release from sediments to the water column in a south-eastern saltmarsh tidal creek  
*A.M. Lohrer and J.J. Wetz*
- 1164 Bacteria and organic matter dynamics during a bioremediation treatment of organic-rich harbour sediments  
*M. Fabiano, D. Marrale and C. Misic*
- 1174 Eutrophication risk assessment in coastal embayments using simple statistical models  
*G. Arhonditsis, M. Eleftheriadou, M. Karydis and G. Tsirtsis*
- 1179 Distribution of enteric bacteria in Antarctic seawater surrounding the Port-aux-Français permanent station (Kerguelen Island)  
*D. Delille and F. Gleizon*
- 1184 Assessment of the aesthetic quality of a selection of beaches in the Firth of Forth, Scotland  
*S.E. Somerville, K.L. Miller and J.M. Mair*
- 1191 Critical evaluation of CROSERF test methods for oil dispersant toxicity testing under subarctic conditions  
*M.G. Barron and L. Ka'aihue*
- Baseline 1200 Distribution and accumulation of metals (Cu, Cd, Zn and Pb) in sediments of a lagoon on the northwestern coast of Portugal  
*P. Monterroso, P. Pato, E. Pereira, C. Vale and A.C. Duarte*
- 1206 Metals and organochlorines in small cetaceans stranded on the east coast of Australia  
*R.J. Law, R.J. Morris, C.R. Allchin, B.R. Jones and M.D. Nicholson*

## Number 10

- |           |      |   |
|-----------|------|---|
| Editorial | 1213 | Ningaloo<br><i>B. Morton</i>  |
| News      | 1215 | Scotland's deep-water corals to be protected; Environment Agency gives helping hand to River Onny salmon; Greenpeace present unique offer to the Icelandic Government   |
|           | 1216 | Massive expansion of marine reserves needed to replenish global fisheries; Pakistan sues shipping company after oil spill; Pirate fishing vessel captured after high seas chase   |
|           | 1217 | Mozambican wins conservation prize; Australia helps Pacific islands to predict the weather; World Water Monitoring Day  |
|           | 1218 | Jellyfish electronic lure used to observe deep-sea behaviour; Great Lakes receive funding from Canadian Government; The cost of ecotourism  |
| Viewpoint | 1219 | State of the marine environment reports—a need to evaluate their role in marine environmental protection and conservation<br><i>P.G. Wells</i>  |
| Review    | 1224 | Ecological condition of US Mid-Atlantic estuaries, 1997–1998<br><i>J.A. Kiddon, J.F. Paul, H.W. Buffum, C.S. Strobel, S.S. Hale, D. Cobb and B.S. Brown</i>   |
| Focus     | 1245 | The influence of cyanobacteria on oil polluted intertidal soils at the Saudi Arabian Gulf shores<br><i>H.-J. Barth</i>  |
| Reports   | 1253 | Heavy metal sedimentary record in a Galician Ria (NW Spain): background values and recent contamination<br><i>A. Cobelo-García and R. Prego</i>   |
|           | 1263 | Chronic effects of tributyltin on the caprellid amphipod <i>Caprella danilevskii</i><br><i>M. Ohji, T. Arai and N. Miyazaki</i>   |
|           | 1273 | Sublethal effects of contamination on the Mediterranean sponge <i>Crambe crambe</i> : metal accumulation and biological responses<br><i>E. Cebrian, R. Martí, J.M. Uriz and X. Turon</i>  |
|           | 1285 | Exposure and time dependent DNA strand breakage in hepatopancreas of green-lipped mussels ( <i>Perna viridis</i> ) exposed to Aroclor 1254, and mixtures of B[a]P and Aroclor 1254<br><i>W.H.L. Siu, C.L.H. Hung, H.L. Wong, B.J. Richardson and P.K.S. Lam</i> |
|           | 1294 | A comparison of congeneric PCB patterns in American eels and striped bass from the Hudson and Delaware River estuaries<br><i>J.T.F. Ashley, R. Horwitz, J.C. Steinbacher and B. Ruppel</i>  |
|           | 1309 | Toxicity comparison of biosurfactants and synthetic surfactants used in oil spill remediation to two estuarine species<br><i>K.R. Edwards, J.E. Lepo and M.A. Lewis</i>   |
|           | 1317 | Antioxidants in the black mussel ( <i>Mytilus galloprovincialis</i> ) as an indicator of black sea coastal pollution<br><i>S. Gorinstein, S. Moncheva, E. Katrich, F. Toledo, P. Arancibia, I. Goshev and S. Trakhtenberg</i>                                   |



- 1326 Application of trichloroacetic acid (TCA) to extraction of soft body for the determination of tissue Cd, Cu, Pb and Zn in the prosobranch *Hydrobia ulvae* (Pennant)  
*A. Sokolowski, P. Richard, D. Fichet, G. Radenac and T. Guyot*
- 1334 Low salinity residual ballast discharge and exotic species introductions to the North American Great Lakes  
*A.J. Niimi and D.M. Reid*
- Baseline 1341 Accumulation of persistent organochlorines in resident white-breasted waterhens (*Amaurornis Phoenicurus*) from Cambodia  
*I. Monirith, T. Kunisue, H. Iwata, S. Tanabe and T.S. Tana*
- 1348 Cd and Zn concentrations in the straits of Malacca and intertidal sediments of the west coast of Peninsular Malaysia  
*C.K. Yap, A. Ismail and S.G. Tan*
- 1354 High Zn and Cd accumulation in the oyster *Crassostrea rhizophorae*, and its relevance as a sentinel species  
*M. de Freitas Rebelo, M.C.R. do Amaral and W.C. Pfeiffer*
- Number 11**
- Editorial 1359 Hong Kong's gloom and doom  
*B. Morton*
- News 1361 Tough Carp Threatened By Goldfish; U.S. plans to ship weapons plutonium to France; Sonar causes the bends in whales
- 1362 Encouraging results from trials to reduce dolphin deaths; Record seizure of endangered species; New guide helps travellers avoid illegal wildlife souvenirs
- 1363 Ecological threat for Peru's only marine reserve; Large ozone hole forming over the Antarctic; Collapse of seals, sea lions and sea otters in North Pacific triggered by overfishing of great whales
- 1364 Adelie penguin oases found in Antarctica; Pushing environmentally sustainable marine fish aquaculture forward
- Review 1365 Tributyltin and polycyclic aromatic hydrocarbon levels in Mobile Bay, Alabama: A review  
*R.B.J. Peachey*
- Focus 1372 Benthic primary producers—a neglected environmental problem in Mediterranean maricultures?  
*M. Holmer, M. Pérez and C.M. Duarte*
- Reports 1377 Assessment of *Jessica* oil spill impacts on intertidal invertebrate communities  
*A. Gelin, V. Gravez and G.J. Edgar*
- 1385 Marine debris accumulation in the nearshore marine habitat of the endangered Hawaiian monk seal, *Monachus schauinslandi* 1999–2001  
*R.C. Boland and M.J. Donohue*
- 1395 In situ impact of petrochemicals on the photosynthesis of the seagrass *Zostera capricorni*  
*C.M.O. Macinnis-Ng and P.J. Ralph*

- 1408 An environmental assessment of the Charleston Ocean Dredged Material Disposal Site and surrounding areas after partial completion of the Charleston Harbor Deepening Project  
*L.E. Zimmerman, P.C. Jutte and R.F. Van Dolah*
- 1420 The distribution of trace metals in Florida Bay sediments  
*V.G. Caccia, F.J. Millero and A. Palanques*
- 1434 Changes in the seasonal cycles of inorganic nutrients in the coastal zone of the southeastern North Sea from 1960 to 1997: effects of eutrophication and sensitivity to meteorological factors  
*H.O. Fock*
- 1450 Potential use of the levels of the mRNA of a specific metallothionein isoform (MT-20) in mussel (*Mytilus edulis*) as a biomarker of cadmium contamination  
*L. Soazig and L. Marc*
- 1456 A synthesis of dominant ecological processes in intensive shrimp ponds and adjacent coastal environments in NE Australia  
*M.A. Burford, S.D. Costanzo, W.C. Dennison, C.J. Jackson, A.B. Jones, A.D. McKinnon, N.P. Preston and L.A. Trott*
- 1470 Biogeochemical conditions in sediments enriched by organic matter from net-pen fish farms in the Bolinao area, Philippines  
*M. Holmer, C.M. Duarte, A. Heilskov, B. Olesen and J. Terrados*
- 1480 Arsenic pollution in Patos Lagoon estuarine sediments, Brazil  
*N. Mirlean, V.E. Andrus, P. Baisch, G. Griep and M.R. Casartelli*
- 1485 Effects of trace metal and exposure to air on serotonin and dopamine levels in tissues of the mussel *Perna perna*  
*E.A. Almeida, A.C.D. Bainy, M.H.G. Medeiros and P. Di Mascio*
- 1491 The effects of a copper-based antifouling paint on mortality and enzymatic activity of a non-target marine organism  
*A. Katranitsas, J. Castritsi-Catharios and G. Persoone*
- 1495 Effects of organic pollution on the initial development of fouling communities in a tropical bay, Brazil  
*M. Mayer-Pinto and A.O.R. Junqueira*
- Baseline 1504 Nickel and cobalt determination in marine sediments by electrothermal atomic absorption spectrometry, and their distribution in the Ria of Ferrol (NW Spain)  
*M.C. Barciela-Alonso, M.C. Tubio-Franco and R. Prego*
- 1510 Ships' sea-chests: an overlooked transfer mechanism for non-indigenous marine species?  
*A.D.M. Coutts, K.M. Moore and C.L. Hewitt*
- 1513 Marine debris ingestion by Southern Giant Petrels and its potential relationships with fisheries in the Southern Atlantic Ocean  
*S. Copello and F. Quintana*
- Number 12**
- Editorial 1517 Rates and totals: population pressures on habitat  
*C. Sheppard*

- News
- 1519 US Ghost Ships banned from scrapping in Teeside; French military seizes one of its former aircraft carriers; ICES again warn that fishery closures are needed to save North Sea cod
- 1520 UK Environment Agency launches campaign to save native crayfish in Dorset; Rare seaweed to be protected from dredging damage; Dikes bulldozed in Danube Delta
- 1521 Southern right whales recovering fast; Australian marine species join global census; Dolphin disaster averted at St Helena; Cancer drug deep-sea sponge re-found
- 1522 Vietnam's lone turtle
- News-in-Brief
- 1522 Nigeria; Canada; Uganda
- Review
- 1523 Effects of disturbances caused by coastal constructions on spatial structure, growth dynamics and photosynthesis of the seagrass *Posidonia oceanica*  
*J.M. Ruiz and J. Romero*
- Reports
- 1534 Marine debris surveys at Volunteer Beach, Falkland Islands, during the summer of 2001/02  
*H. Otley and R. Ingham*
- 1540 Restoration of the eutrophic Orbetello lagoon (Tyrrhenian Sea, Italy): water quality management  
*M. Lenzi, R. Palmieri and S. Porrello*
- 1549 Relative importance of dissolved and food pathways for lead contamination in shrimp  
*F. Boisson, O. Cotret, J.-L. Teyssié, M. El-Baradei and S.W. Fowler*
- 1558 Activity concentration of caesium-137 in seawater and plankton of the Pomeranian Bay (the Southern Baltic Sea) before and after flood in 1997  
*D. Knapinska-Skiba, R. Bojanowski and R. Piękoś*
- 1563 Effect of size, tissue parts and location on six biochemical markers in the green-lipped mussel, *Perna viridis*  
*P.S. Lau and H.L. Wong*
- 1573 Trace metals in the living and nonliving components of scleractinian corals  
*A.J. Reichelt-Brushett and G. McOrist*
- 1583 Variations in benthic fauna underneath an effluent mixing zone at a marine oil terminal in Port Valdez, Alaska  
*A.L. Blanchard, H.M. Feder and D.G. Shaw*
- 1590 Adjustment of benthic fauna following sediment disposal at a site with multiple stressors in Port Valdez, Alaska  
*A.L. Blanchard and H.M. Feder*
- 1600 Investigations into the bioavailability and bioaccumulation of mercury and other trace metals to the sea cucumber, *Sclerodactyla briareus*, using in vitro solubilization  
*K.M. McAloon and R.P. Mason*
- 1609 Quantification and classification of ship scraping waste at Alang-Sosiya, India  
*M. Srinivasa Reddy, S. Basha, V.G. Sravan Kumar, H.V. Joshi and P.K. Ghosh*



Baseline	1615	A 150-year reconstruction of the history of coastal eutrophication in Roskilde Fjord, Denmark <i>A. Clarke, S. Juggins and D. Conley</i>
	1619	Evidence of oil leakage from the <i>Bahía Paraíso</i> wreck in Arthur Harbour, Antarctica <i>L.J. Janiot, J.L. Sericano and O. Marcucci</i>
	1622	Trace metal distribution and relation to marine sediment mineralogy, Gulf of Carpentaria, Northern Australia <i>M.E. Cox and M. Preda</i>
Book review	1630	Oil Spills First Principals: Prevention and Best Response <i>J.B. Pearce</i>
Erratum	1631	Erratum to "Surveillance for previously unmonitored organic contaminants in the San Francisco Estuary" [Marine Pollution Bulletin 46 (2003) 1102-1110] <i>D.R. Oros, W.M. Jarman, T. Lowe, N. David, S. Lowe and J.A. Davis</i>
	I	Publisher's note
	III	Contents and Author Index for Vol. 46